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ORIGINAL ARTICLE

Effects of video-feedback intervention on harmonious parent–child interaction and sensitive discipline of parents with intellectual disabilities: A randomized controlled trial

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Abstract

Background: This study tested whether video-feedback intervention based on attachment and coercion theory increased harmonious parent–child interaction and sensitive discipline of parents with mild intellectual disabilities or borderline intellectual functioning.

Methods: Observer ratings of video-recorded structured interaction tasks at home formed pretest, post-test, and 3-month follow-up outcome data in a randomized controlled trial with 85 families. Repeated measures analyses of variance and covariance were conducted to test for the intervention effect and possible moderation by IQ and adaptive functioning.

Results: The intervention effect on harmonious parent–child interaction was conditional on parental social adaptive behaviour at pretest, with lower adaptive functioning associated with stronger intervention benefit at post-test and follow-up compared to care as usual. Intervention effects were not conditional on parental IQ. Intervention effects for sensitive discipline were not found.

Conclusion: Although the video-feedback intervention did not affect observed parenting for the average parent, it may benefit interaction between children and parents with lower parental adaptive functioning.

KEYWORDS

mild intellectual disability, parent–child interactions, parenting, randomized controlled trial, sensitivity, video-feedback intervention

1 | INTRODUCTION

Parenting is a rewarding but complex activity, especially for parents with mild intellectual disabilities or borderline intellectual functioning (Aunos & Feldman, 2002; Llewellyn & McConnell, 2002; Willems, De Vries, Isarin, & Reinders, 2007). People with mild intellectual disabilities or borderline intellectual functioning (hereafter referred as MID) have on average more mental and physical health problems, more psychological stress, less social support, and more often histories of institutional upbringing, trauma, and maltreatment (Granqvist, Forslund, Fransson, Springer, & Lindberg, 2014; Hatton & Emerson, 2003; Willems et al., 2007). Societal concern about parenting by parents with MID is strong. A possible over-representation of parents with mild intellectual disabilities was reported for child protection services and child welfare services (McConnell, Feldman, Aunos, & Prasad, 2011;

McGaw, Scully, & Pritchard, 2010). When services become involved, disproportionate numbers of children of parents with MID are placed in foster care or put up for adoption (Booth, Booth, & McConnell, 2005) rather than provided with family-based support. A large minority of professionals attribute the functioning of parents with MID to immutable characteristics (Meppelder, Hodes, Kef, & Schuengel, 2014), which may undermine the belief that parenting quality can effectively be influenced, especially if disabilities are more pronounced. This study tested whether parents with MID may effectively be supported in their parenting, and the extent to which benefits depend on intellectual capacity and adaptive functioning.

A small number of studies have shown that parents with MID can benefit from parenting support for learning important skills to safeguard their children's safety, health, cognitive development, and

well-being (Feldman, 2004; Llewellyn et al., 2004; Tymchuk, 2004; Wade, Llewellyn, & Matthews, 2008). A Cochrane review (Coren, Thomae, & Hutchfield, 2011) identified only three studies with a controlled design on such interventions, with sample sizes up to 45. Otherwise, little is known about effects on more complex parental skills of parents with MID that foster harmonious parent–child interactions, secure attachment, and non-coercive, inductive discipline.

Juffer, Bakermans-Kranenburg, and Van IJzendoorn (2008) developed a video-feedback intervention to promote positive parenting and sensitive discipline (VIPP-SD), on the basis of tenets from attachment theory (Ainsworth et al., 1978) and Patterson's ideas about avoiding coercive cycles. VIPP-SD promotes sensitive responsiveness as well as sensitive discipline, because this disciplinary style is likely to prevent escalation of hostile and coercive interactions and indirectly to prevent disruptive child behaviour problems (Patterson, 1982, 2002). VIPP-SD has been found effective in multiple trials with low-risk and high-risk families (Juffer, Bakermans-Kranenburg, & Van IJzendoorn, in press), like parents of children with externalizing behaviour problems (Mesman et al., 2008) and parents in severely deprived conditions (Negrão, Pereira, Soares, & Mesman, 2014). On the basis of VIPP-SD, the video-feedback intervention for parents with learning difficulties (VIPP-LD) was developed (Hodes, Meppelder, Schuengel, & Kef, 2014). This programme was hypothesized to increase the harmony of parent–child interaction (Janssen, Riksen-Walraven, & Van Dijk, 2003), affording optimal support for learning and development. The first purpose of this study was to test the effects of VIPP-LD on harmonious parent–child interaction and sensitive discipline of parents with MID. A randomized controlled trial design was used with a larger sample size than previously in this population, in order to be able to test the role of intellectual and adaptive functioning as potential moderators of intervention efficacy. The second purpose was therefore to test to what extent intervention efficacy depended on two individual moderators: parental IQ and adaptive functioning, because these factors are often used as proxies for fitness to parent and amenability to parenting skill improvement (Aunos & Feldman, 2002; Benjet, Azar, & Kuersten-Hogan, 2003).

2 | METHODS

2.1 | Participants

Parents with MID were recruited from 10 care organizations in the Netherlands supporting parents with intellectual disabilities. Parents could be included if they had at least one child in the age range from 1 up to 7 years living with them. Ethical approval for the study and the informed consent procedure (including the supports to comprehend the purpose and procedure) was obtained from the Medical Ethical Committee of VU University Medical Center, Amsterdam and the trial protocol was registered with the CCMO before the study began (ref. no. NL 31934.029.10).

A total of 146 parents participated in the first stage of the study (see Figure 1). Parents were visited at home or in the family care facility, were interviewed, and asked to fill out questionnaires. One of the questionnaires was a Dutch version of the Parenting Stress

Key messages

- Parenting behaviour and parent–child interactions for parents with mild intellectual disabilities or borderline intellectual functioning on average did not improve from an intervention on the basis of attachment and coercion theory.
- Intervention effects did not vary by parental IQ.
- Parents with lower adaptive functioning benefited more from the intervention.
- Low parental IQ or lower adaptive functioning lack support as contraindicators of parenting support.
- More work is needed to improve intervention effectiveness for parents with mild intellectual disabilities or borderline intellectual functioning.

Index–Short Form (Abidin, 1983, 1992; De Brock, Vermulst, Gerris, & Abidin, 1992; see below). Parents who got a total score at subclinical level, at or above the 62th percentile, were recruited for the intervention study, as well as parents whose children were placed under custody of the child protection services and parents who were living in houses with on-site support (possibility of support 24/7). Of the 85 parents, all parents (98% mothers and 2% fathers) consented to the intervention study. Mean age of parents at pretest was 30.3 years ($SD = 6.7$ range = 20.6–46.5). Parents' IQ recorded on file ranged from 49 to 88 with a mean of 71 ($SD = 9$). Mean age of the children at pretest was 3.1 years ($SD = 1.4$; range = 1.1–6.5); 52% were girls. Recruitment spanned 2 years. To start as soon as possible after the parent had proceeded to the intervention phase, sequential block randomization was used to assign parents to the experimental group or the control group. An independent researcher, not belonging to the research team, used a computer program every time there were five or six parents available, which randomly assigned in total 43 families in the VIPP-LD intervention group and 42 families in the care as usual (CAU) control group. A target sample size of 85 (calculated by G*power) was chosen in order to have sufficient power (>0.80) for detecting a significant Time \times Group effect comparable to an effect size of $d = .33$ (Faul, Erdfelder, Lang, & Buchner, 2007). Parents in the control group received CAU and were put on a waiting list for intervention after the follow-up.

2.2 | Procedure

All intervention sessions and assessments took place at the participants' home. Demographic data and parental IQ were obtained from the care organizations' educational psychologists. They were instructed to administer the Vineland Adaptive Behaviour Scales with the parents and deliver these data to the researchers. Parenting stress was assessed by administering a questionnaire to parents by one of the researchers.

Trained support staff (see below) conducted 15 home visits with parents in the intervention group: 7 visits for video recording, 7 visits

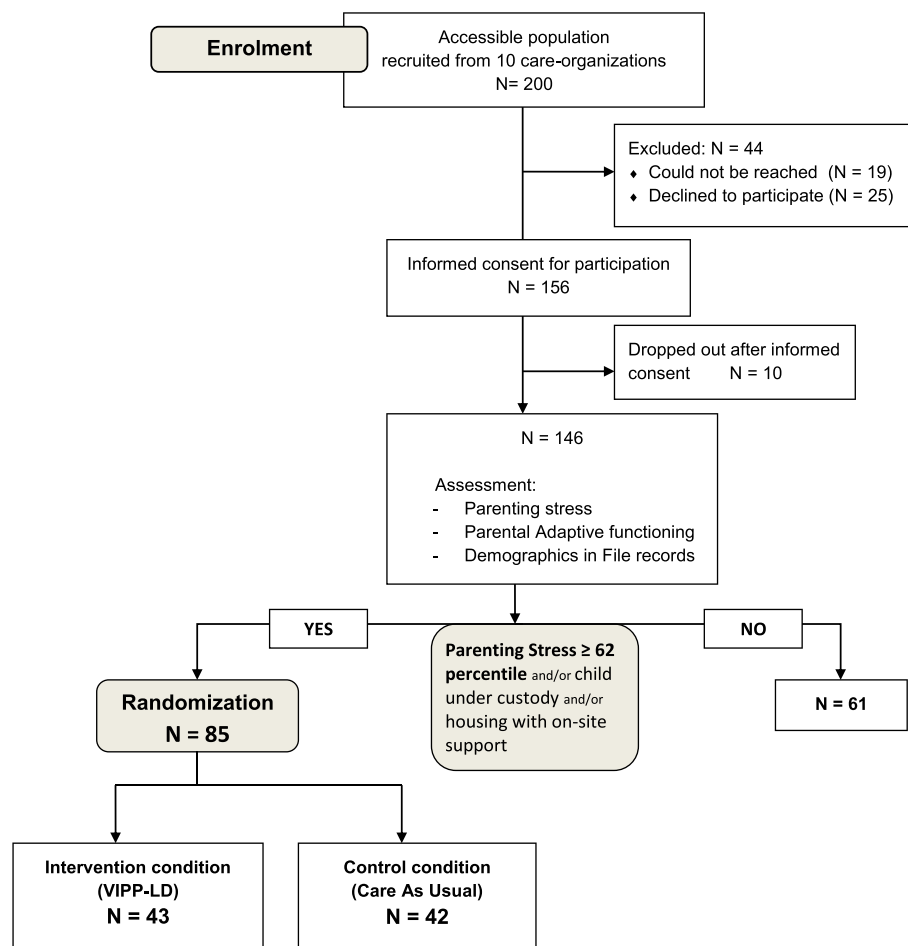


FIGURE 1 CONSORT flow diagram of enrolment and intervention allocation [Colour figure can be viewed at wileyonlinelibrary.com]

for video feedback, and 1 closing visit. Parents were visited twice a week within a total intervention period of 3 months (or more in case of illness or holidays). During and after these 3 months, CAU continued. Observations of parent–child interactions took place for the experimental intervention group as well as for the CAU group at pretest, 3 months later at post-test, and again 3 months later at follow-up.

2.3 | Intervention

Consistent with Feldman's (2004) recommendations regarding interventions with parents with MID, VIPP-LD focused on concrete parenting skills, used behavioural teaching strategies, used video and pictures as well as text, and took place at home, where the skills are needed (see Hodes et al., 2014, for an elaboration). The feedback reinforced positive interactions between the primary caregiver and the child. The intervention was conducted from a manual, including the steps by which interventions such as video feedback were personalized. Parents received a personal scrapbook with stills taken from the video recordings as visual reminder, to reinforce important turning points in the parent–child interaction. VIPP-LD was conducted by care organization staff, under supervision of the organizations' psychologist. Staff ($n = 32$) were trained by the first author. Every third video-feedback session with the parent was recorded to monitor treatment fidelity.

2.4 | Care as usual

The care received by the control group consisted of support with running their household, with administrative matters, with money issues, with personal problems, with general self-care, and sometimes support with general parenting issues. CAU did not include any form of video support.

3 | MEASURES

3.1 | Parenting stress

Stressful aspects of parenting the focal child were assessed with the 25-item Dutch version of the Parenting Stress Index—Short Form (Abidin, 1983; De Brock et al., 1992). Parents responded on a 6-point scale (1 = *strongly disagree* to 6 = *strongly agree*). The mean score represented total parenting stress. Internal consistency was .90 (Cronbach's α).

3.2 | Harmonious parent–child interaction

Harmony in parent–child interaction was observed within the semi-structured three-bag procedure (NICHD Early Child Care Research Network, 2003). The 15-min play period requires parents to support their child in engaging with three sets of age-appropriate toys (separate sets for 1- to 2-year-olds, 3- to 4-year-olds, and for 5- to

7-year-olds). Harmonious quality was indexed by 10 rating scales: parents' supportive presence, respect for autonomy, stimulation of cognitive development, hostility, and confidence, as well as children's enthusiasm, persistence, negativity, affection towards the parent, and the dyadic scale affective mutuality. The scores were rated on an anchored scale from 1 (*very low*) to 7 (*very high*). The individual subscales were aggregated into an overall scale indexing harmonious interaction, with Cronbach's α of .91 for the baseline assessment. Aggregation of the subscales was further supported by high intercorrelations and the results of factor analyses. All sessions were double coded by a pool of four trained coders. The coders were blind to the experimental condition, to measurement occasion (pretest, post-test, or follow-up), and to other data concerning the participants. The average pairwise intraclass reliability coefficient (two raters, absolute agreement) was .79 (range: .71–.83).

3.3 | Sensitive discipline

Sensitive discipline was assessed within the "do and don't" paradigm (Kochanska, Coy, & Murray, 2001). For the don't task, a bag with attractive toys was given to the parent to place these toys in front of the child. The parent was instructed not to allow the child to touch the toys during 2 min. These 2 min were video recorded. Afterwards, the three-bag procedure started. For the do task, 1 min before the 15-min playing session of the three-bag procedure ended, the parent was signalled that the toys needed to be cleaned up. The instruction was that children themselves should do the cleaning up as much as possible. Five minutes were recorded for coding.

Coding was done according to a manual of Verschueren, Dossche, Marcoen, Mahieu, and Bakermans-Kranenburg (2006), on the basis of Kochanska et al. (2001) guidelines (see also Joossen, Bakermans-Kranenburg, & Van IJzendoorn, 2012). The do and don't tasks were rated with four subscales for measuring physical discipline, harsh discipline, verbally harsh discipline, and laxness, on a 1 (*never*) to 5 (*most of the time*) scale, as well as with a supportive presence scale, on a 1 (*complete lack of support*) to 7 (*skilful support throughout the session*) scale. The internal consistency of the aggregate scale for measuring sensitive discipline was .70 for the do task and .65 for the don't task at pretest. Aggregates for sensitive discipline during the do task and sensitive discipline during the don't task were further supported by high internal consistency and the results of factor analyses. All the recordings were rated by two out of three trained coders, blind to condition (intervention or control group), time point (pretest, post-test, or follow-up level), and any other participant data. The average intraclass correlation (two raters, absolute agreement) for intercoder reliability was .87 (range = .82–.91).

3.4 | Parental adaptive functioning

Adaptive functioning was assessed with the Dutch version of the Vineland Adaptive Behaviour Scales (Sparrow, Balla, & Cicchetti, 1984; Van Berckelaer-Onnes, Buysse, Dijkxhoorn, Gooyen, & Van der Ploeg, 1995) on three domains: socialization, communication, and daily living skills. Socialization refers to skills needed to get along with others and to regulate emotions and behaviour (134 items). Communication refers

to receptive, expressive, and written language skills (133 items). Daily living skills refer to the skills needed to take care of oneself and contribute to a household and community (201 items). Raw domain scores were converted into developmental age scores. Furthermore, an Adaptive Behaviour Composite score (Van Duijn, Dijkxhoorn, Noens, Scholte, & Van Berckelaer-Onnes, 2009) was computed on the basis of raw scale scores for socialization, communication, and daily living skills. The Cronbach's α for Adaptive Behaviour Composite within this study was .96.

3.5 | Data analysis

Analyses were conducted using SPSS version 21. No outliers were identified ($z \geq 3.29$ or ≤ -3.29 ; Tabachnick & Fidell, 2007). Because of the small amount of missing data (<5%), intention to treat was implemented for missing data at post-test and follow-up as suggested by Fisher et al. (1990). Missing scores, all resulting from dropout, were replaced by pretest scores for four families dropping out after pretest and by post-test scores for four families dropping out after post-test. For all the analyses, α level was set at .05. Significant effects were tested for robustness by running the analyses on five datasets generated by the multiple imputation module of SPSS.

Preliminary analyses of demographic and background factors checked for potential confounders. Next, a repeated measures analysis of variance was conducted with condition (intervention or control) entered as between-subjects factor and with time (pretest, post-test, and follow-up) entered as within-subjects factor in the model. The intervention effect was tested by examining whether the Time \times Condition interaction effect was significant. Harmonious parent-child interaction (three-bag procedure) and sensitive discipline (do and don't tasks) were included as the dependent variables in three sets of repeated measures analyses of variance. Finally, moderation effects were tested by including either IQ or adaptive functioning as a moderator (i.e., covariate) in the repeated measures analyses of covariance and examining the three-way interaction effect Condition \times Time \times Moderator. When a significant three-way interaction effect was found, estimated means were calculated at levels of the covariate 1 SD above and 1 SD below the mean to probe and interpret the direction of the moderator effect (Aiken, West, & Reno, 1991).

4 | RESULTS

4.1 | Descriptive results

Table 1 shows descriptive statistics on the pretest for moderator and control variables. Differences between the randomized intervention group and the control group on the hypothesized moderators and background factors were not significant. Table 2 presents the descriptive statistics of the dependent variables at different time points.

4.2 | Intervention and moderator effects

Results did not support intervention effects for the full intervention group. The Time \times Condition interaction factor was not significant for harmonious interaction nor for sensitive discipline. Findings for

TABLE 1 Demographic background and moderators' descriptive statistics

	Experimental (N = 43)			Control (N = 42)		
	N (%)	M (SD)	Range	N (%)	M (SD)	Range
Parent gender						
Female	43 (100)			40 (95)		
Parent age (year)		28.06 (6.72)	20.75–45.17		26.35 (6.78)	20.58–46.50
Educational level						
Primary special school	5 (11.6)			2 (4.8)		
Secondary special school	19 (44.2)			21 (50)		
Lower secondary education	9 (20.9)			10 (23.8)		
Other	10 (23.3)			9 (21.4)		
Paid job	15 (34.9)			10 (23.8)		
Single parent	17 (39.5)			17 (40.5)		
Parity		2.20 (1.40)	1–6		1.78 (1.02)	1–5
Parent IQ ^a		71.23 (8.61)	50–87		70.05 (9.23)	49–88
Parental adaptive functioning (VABS) ^b		812.50 (42.68)	722–883		812.95 (45.85)	711–907
Hours support (weekly)		5.20 (5.61)	0.50–24		4.39 (3.56)	0.50–15
Type of housing						
Housing with on-site support	11 (26)			19 (45)		
Target child gender						
Female	22 (51.2)			22 (52.4)		
Target child age (year)		3.32 (1.33)	1.08–6.33		2.92 (1.50)	1.17–6.50

Note. Groups were not significantly different on background nor moderator variables ($p > .05$). VABS = Vineland Adaptive Behaviour Scales.

^aMissing data for 3 (experimental group) and 3 (control group) parents.

^bMissing data for 5 (experimental group) and 1 (control group) parents.

TABLE 2 Descriptives of dependent variables (intention to treat overall scales) at baseline, post-test, and follow-up per condition

Dependent variable		Pretest		Post-test		Follow-up	
		M (SD)	Range	M (SD)	Range	M (SD)	Range
Harmonious parent-child interaction (three-bag procedure)	Intervention ^a	4.74 (0.78)	2.85–6.13	4.62 (0.74)	3.20–5.98	4.80 (0.63)	3.20–5.98
	Care as usual ^b	4.91 (0.67)	2.53–6.10	4.67 (0.84)	2.53–5.78	4.84 (0.71)	3.00–6.20
	Total ^c	4.82 (0.73)	2.53–6.13	4.65 (0.79)	2.53–5.98	4.82 (0.66)	3.00–6.20
Sensitive discipline (do task)	Intervention ^a	4.53 (0.65)	2.56–5.38	4.50 (0.53)	2.94–5.31	4.44 (0.59)	2.31–5.19
	Care as usual ^b	4.34 (0.60)	2.44–5.13	4.34 (0.59)	3.00–5.25	4.43 (0.63)	2.31–5.19
	Total ^c	4.44 (0.63)	2.44–5.38	4.42 (0.57)	2.94–5.31	4.43 (0.61)	2.31–5.19
Sensitive discipline (don't task)	Intervention ^a	4.23 (0.72)	2.44–5.31	4.19 (0.73)	2.50–5.25	4.41 (0.63)	2.56–5.31
	Care as usual ^b	4.14 (0.59)	2.94–5.13	4.20 (0.57)	3.13–5.31	4.21 (0.57)	2.63–5.38
	Total ^c	4.18 (0.66)	2.53–6.13	4.20 (0.65)	2.53–5.98	4.31 (0.61)	3.00–6.20

^aN = 43.

^bN = 42.

^cN = 85.

the three-way interactions between the within-subject factor “time,” the between-subject factor “condition” (intervention or control group), and the two moderators parental IQ and parental adaptive functioning are shown in Table 3. The moderation by IQ was not significant. The interaction factor Time \times Condition \times Adaptive Functioning was significant for harmonious interaction, $F(2, 150) = 3.89$, $\eta_p^2 = .04$, $p = .04$. We ran a second analysis with multiple imputation for missing data. Of the five imputed sets, three sets showed a significant effect size (range .026 $< p < .12$ and .026 $< \eta_p^2 < .044$).

To probe the direction of the moderator effect for parental adaptive functioning on the intervention effect on harmonious interaction, estimated means were plotted for the intervention and control group

at each time point for varying levels of adaptive functioning, 1 SD below mean (low), average level (mean), and 1 SD above mean (high; Figure 2). This revealed that the strongest intervention effect on harmonious interaction occurred for parents with relatively low adaptive functioning.

5 | DISCUSSION

On average, a tailored video-feedback intervention (VIPP-LD) based on attachment and coercion theory did not improve harmonious parent-child interaction nor sensitive discipline of parents with mild

TABLE 3 Intervention effectiveness on harmonious parent–child interaction and sensitive discipline

	Harmonious parent–child interaction three-bag procedure			Sensitive discipline: do task			Sensitive discipline: don't task		
	<i>F(df1, df2)</i>	<i>p</i>	η_p^2 [90% CI]	<i>F(df1, df2)</i>	<i>p</i>	η_p^2 [90% CI]	<i>F(df1, df2)</i>	<i>p</i>	η_p^2 [90% CI]
Time	3.89 (2, 166)	.02	.05 [.003, .10]	0.03 (2, 166)	.97	.00 [n.a., n.a.]	2.01 (2, 166)	.14	.02 [n.a., .07]
Time × Condition ^a	0.49 (2, 166)	.61	.01 [n.a., .03]	0.84 (2, 166)	.43	.01 [n.a., .04]	1.24 (2, 166)	.29	.02 [n.a., .05]
Time × Condition × Moderator: IQ ^b	2.19 (2, 150)	.12	.03 [n.a., .08]	0.05 (2, 150)	.95	.00 [n.a., n.a.]	0.90 (2, 150)	.41	.01 [n.a., .05]
Time × Condition × Moderator: Parental Adaptive Functioning ^c	3.18 (2, 150)	.04	.04 [.0005, .10]	1.04 (2, 150)	.36	.01 [n.a., .05]	0.05 (2, 150)	.95	.00 [n.a., n.a.]

Note. ANOVA = analysis of variance; CI = confidence interval.

^aBased on repeated measures ANOVA with time, condition, and Time × Condition as within-subjects effects.

^bBased on repeated measures ANOVA with time, condition, Time × IQ, and Time × Condition × IQ as within-subjects effects and IQ as between-subjects effect.

^cBased on repeated measures ANOVA with time, condition, Time × Condition, Time × Parental Adaptive Functioning, and Time × Condition × Parental Adaptive Functioning as within-subjects effects and parental adaptive functioning as between-subjects effect.

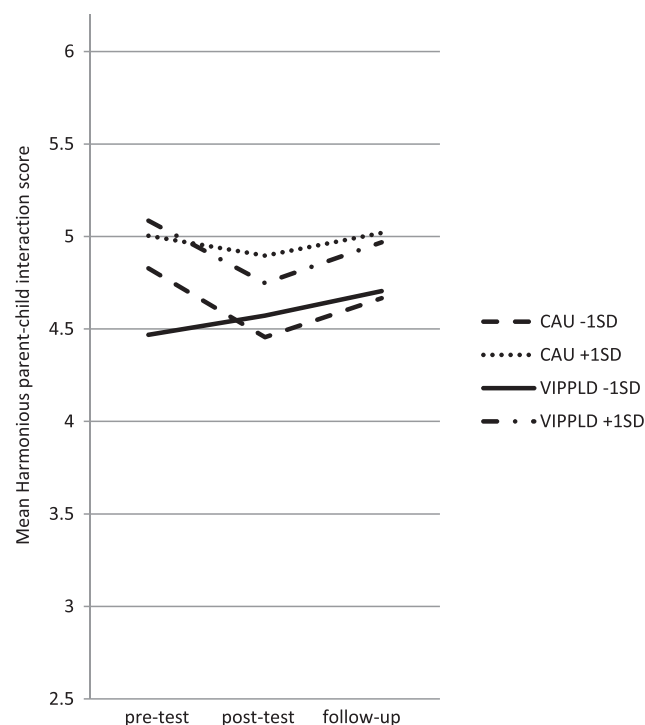


FIGURE 2 Intervention effectiveness on harmonious parent–child interaction moderated by parental adaptive behaviour (Vineland Adaptive Behaviour Scales, Adaptive Behaviour Composite). CAU = care as usual; VIPP-LD = video-feedback intervention for parents with learning difficulties

intellectual disabilities or borderline intellectual functioning. Intervention effects did not depend on parental IQ, which was in line with other studies (Llewellyn, McConnell, Honey, Mayes, & Russo, 2003; McGaw et al., 2010; Willems et al., 2007). Unexpectedly, relatively low parental adaptive functioning was significantly associated with stronger positive intervention effect on harmonious parent–child interaction, although this effect did not appear to be highly robust against multiple imputation of the small number of missing data. The findings regarding IQ and especially adaptive functioning showed that low intellectual or adaptive functioning in itself did not limit the effectiveness of parent–ing support.

Juffer, Bakermans-Kranenburg, and Van IJzendoorn (in press) reviewed the randomized controlled studies on the benefit of VIPP interventions over CAU and found that effect sizes on observed sensitive parenting varied between $d = .25$ and $d = .78$, with an average effect size of $d = .47$ ($k = 12$; $N = 1,112$). The six studies focusing on parents at risk reported an effect size of $d = .54$, indicating that high-risk status does not necessarily lead to lower effectiveness. The meta-analytic effect size also indicates that this study had sufficient statistical power (.99) to detect a statistically significant Time × Group interaction effect (Faul et al., 2007). One potential explanation for the overall lack of effectiveness in our study may be that while the parents were considered at risk due to their MID and high parenting stress, the observed quality of parent–child interactions at pretest was moderate, not low. The parents interacted with their children already reasonably well, thus creating a possible ceiling effect for part of the sample. This may have been especially the case in this population, as parents with MID may feel that their

parenting is under heightened scrutiny (Aunos & Feldman, 2002) and they therefore showed their best possible parenting behaviour during the video recordings. Consistent with the potential ceiling effect is that lower harmonious interaction at pretest was found for parents with low adaptive functioning ($r = .24$; $p = .03$). Parents with low adaptive functioning may have had more room to improve, which explains why VIPP-SD offered a benefit for these parents. Another explanation may derive from the decision to select parents who experienced high parenting stress, because participation would be of direct potential benefit to this vulnerable group. However, it cannot be excluded that parents who were randomized to the control group sought alternative support for their parenting problems, diminishing a potential effect of the VIPP-LD intervention. Finally, for the sensitive discipline scales, the marginal internal consistency of the aggregates may have attenuated the effect sizes.

5.1 | Strengths and limitations

This study adds to the limited set of randomized controlled studies of parenting support effects on parents with MID (Coren et al., 2011). Although sample size was sufficient yet modest, it was larger than other studies on this population to date, which enabled testing of moderators of effectiveness. One important limitation was that parents were recruited through care organizations. It is therefore not known whether the intervention may be of benefit to parents not receiving any form of support. Another limitation is that the follow-up period of 3 months was kept relatively short, given the high parenting stress in the waiting list control group. It is unknown whether overall effects may be visible over the long term as a sleeper effect, nor whether the increase in harmonious interaction among parents with the lowest levels of adaptive functioning was maintained after follow-up. A final limitation is that generalization of effects, especially to parenting of other children in the family, was not tested.

In conclusion, harmonious parent-child interaction tended to improve more through a relatively brief (15 sessions) home-based intervention for parents with relatively low adaptive functioning, whereas benefits of this intervention for parents across variation in MID or borderline intellectual functioning on parenting behaviour could not be demonstrated. The assumption that lower IQ or lower adaptive functioning predict less or no benefit from parenting support appeared unwarranted, which further supports recommendations that in child protection cases, determination of parental competence and decisions on out of home placements are to be based on assessments of parenting itself, and not merely on distal indicators such as intellectual or adaptive functioning (Benjet et al., 2003). Further research is needed to develop or adapt interventions for parents with MID or borderline intellectual functioning and high parental stress.

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